

## How did the Tigers contract Rabies?

It is natural that people should wonder in what manner these tigers contracted rabies. As rabies virus cannot gain entry into the body other than through broken skin, and the virus has to be conveyed by means of *fresh* saliva, it follows that the two animals contracted the disease either by being bitten or wounded by some rabid animal; or (which is more likely) the virus in fresh saliva from some rabid beast they had killed, or fed upon, entered their bodies through some wound or abrasion, or some break in the skin of mouth or tongue. They may have licked the 'kill' and so licked fresh saliva and in that way have got the virus into their system. The smallest break in the skin would suffice, and that may have come about in a number of ways: a cut from a sharp bone on some part of lips or tongue; a scratch on the lips from a thorn; or any of many possible happenings.

## Other peculiar Occurrences

Major A. St. J. Macdonald reminds me in *epistola* of several cases of tigers entering houses in a semi-conscious state, and refers to the account in the *Indian Forester*, a short version of which appeared in the *B.N.H.S. Journal*, Vol. 36. p. 235, to a happening in Upper Burma when a tiger walked into the Rest House by the front door, lay down, and afterwards got up and quietly left by the way he had entered. What was noticed more than anything else was the awful stench from the tiger's body and the swarms of flies even at that late hour of the night.

A third case, to which Major Macdonald was a witness, was that of a not fully grown tiger entering a cattle pen by day and lying down without paying any attention to cattle and calves tethered in the yard and in the shed. The animal was killed by spears while in a comatose state and found to be suffering from advanced blood poisoning as the flesh was of the colour of an over-ripe pear and highly oedematous. In this instance porcupine quills were the cause.

None of these happenings were occasioned by rabies.

BANGALORE.

16th September, 1950.

R. W. BURTON,

Lt.-Col. I.A. (Retd.)

#### 4. THE 'DEW-CLAWS' OF THE HUNTING LEOPARD OR CHEETAH [*ACINONYX JUBATUS* (SCHREBER)]

I have not had the fortune to witness the sport of blackbuck hunting with aid of the cheetah. None of the accounts contained in shikar books are available to me just now so I turn to the 'Fauna of British India, Mammalia', Vol. I where the author, R. I. Pocock, F.R.S., describing the method of hunting from accounts available to him (for he will not have written from personal observation of the sport) says on page 329:

'The victim . . . . . is usually apparently struck over by a blow of the Cheetah's fore paw, is then seized by the throat . . . . .'

One would think that the forearm and paw of the cheetah has not the muscular power necessary for such a feat, especially when it is borne in mind that the weight of the buck is about 90 lbs. It seems that it has not been related in the accounts available to Pocock exactly how the buck is struck down in full flight.

I have just come across the two volumes of a book titled 'The New Shikari at Our Indian Stations' by Colonel Julius Barras, 1885, and read at page 92 of Vol. I exactly why the cheetah is able to strike down the buck. Having described the preliminaries and circumstances of the hunt Barras relates:

'I now inspected the carcass of the deer (*sic*) with a view to ascertain if possible how the cheetah had been able so instantaneously to strike down such a powerful animal immediately on getting up with it. I at once observed a single, long deep gash in the flank which was evidently caused by the decisive blow. But I could not imagine with what weapon the leopard had been able to inflict this very strange-looking wound. Then, turning to the beast, as it sat on the cart, I inspected it closely and saw that the dew-claw which in the dog appears such a useless appendage, is represented in this brute by a terrible-looking talon exactly suited to the infliction of such a gash.'

So here we have it. It is not, as we can readily imagine, by a blow of the paw alone that the buck is struck down. Nature, to aid the cheetah's speed has provided almost dog-like nails to his four toes, but has retained for him the powerful, sharp, curved dew-claw to enable him to obtain the necessary purchase to overthrow the buck at racing speed. Without such a dew-claw the beast would probably not be able to strike the blackbuck down with the sureness he displays.

Comments on the above by members who keep cheetahs for the coursing of blackbuck would be interesting by way of confirmation or otherwise.

BANGALORE.

10th July, 1950.

R. W. BURTON,

Lieut.-Col. I.A. (Retd.)

[According to Dr. Edward Hindle, F.R.S., Scientific Director of the Zoological Society of London, to whom the question was referred, the general opinion concerning the 'dew-claw' in all animals where it is present is that it is a vestigial digit on its way to disappearance. He had not heard of the suggestion that in the cheetah it is used for striking and holding down prey, nor could he offer any information concerning its possible function in this animal. But K. S. Dharmakumarsinhji of Bhavnagar, who has considerable experience of hunting with trained cheetahs, comments as follows:

'The cheetah's main weapon of attack is the dew-claws without which it would be difficult for him to hold down large prey.

Our experience in hunting with cheetahs is that the dew-claws are made full use of as hooks for holding on to blackbuck once the animal has been contacted. Cheetahs with blunted dew-claws were not able to control full sized blackbuck as effectively as those that possessed sharp undamaged ones. We have found therefore that the

dew-claw is very important to the cheetah and he can also inflict a severe wound with it.

Sometimes it is solely by means of the dew-claws that the black-buck is secured in the chase.'—EDS.]

## 5. NOTES ON THE CLOUDED LEOPARD [*NEOFELIS NEBULOSA* (GRIFFITH)]

(With a plate)

Early in April 1950 a specimen of the Clouded Leopard which had been killed by a Forest Guard in North Borneo, was sent to the Raffles Museum for identification.<sup>1</sup> This animal has a wide range from Nepal and Sikkim eastward to southern China, Hainan and Formosa and south to Sumatra, the Malay peninsula and Borneo<sup>2</sup>, but according to Pocock (1939: 251-3) little is known of its habits. He describes it as 'everywhere rare, or at all events seldom seen by European sportsmen, probably because it inhabits dense forests and is nocturnal'. The only field notes to which he was able to refer appear to have been those of Raffles from Sumatra (1821: 250), Tickell from Sikkim (1843: 816), Swinhoe from Formosa (1862: 353) and Brownlow from Tavoy (1928: 789).

According to Raffles the animal is largely arboreal and preys on birds. Tickell says that in Sikkim it feeds on goats and pigs, that it is savage and wary, and that when wounded it may turn fiercely on its assailants. According to Swinhoe it commits great havoc among deer in Formosa; but he adds that it never attacks man unless provoked. Brownlow provides the only positive contradiction to the last statement at present recorded, a leopard which killed several head of cattle and then stalked a native boy, who saved himself by splitting its skull with his knife. For completeness one may perhaps add the account by Gabb (quoted by the editors in this journal, 48 (4), 1949: 804) of a pair found feeding on porcupines in a cave in the Darjeeling district. The information supplied with the skin from North Borneo adds several items to these data; in addition earlier notes have been published on *nebulosa* in Borneo which are apparently not available in India. It seems, therefore, to be of value to summarise this additional material for the benefit of readers of this journal.

The North Borneo specimen was a female; the ground colour of the skin is a dull grayish fawn, with the flank pattern in the form of well-marked rosettes, each with its anterior rim about as thick as the posterior rim. It was encountered in a coastal swamp at Ulu Sungei

<sup>1</sup> The animal was killed on 19 March; it was sent to the Raffles Museum by Mr. G. S. Brown, Asst. Conservator of Forests, North Borneo.

<sup>2</sup> Pocock (*loc. cit.*) includes Java in the range of the Clouded Leopard; so do Carter, Hill & Tate, the authors of 'Mammals of the Pacific World' (1945:96). Chasen (1940:106) and Tate (1947:191) rightly refrain from doing so. The error is one of some antiquity; it starts with G. Cuvier (1823:437), who cites Java as the type locality of his *Felis diardi*, which is a race of *nebulosa*. To the best of my knowledge no feral specimen has ever been taken in Java. The Raffles Museum collection contains a fine beast said to have been killed at Changi, on Singapore Island, in 1898.